GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA

UNSTARRED QUESTION NO:862
ANSWERED ON:04.03.2008
DISCOVERY OF CERTAIN SPECIES IN ANTARTICA
Singh Kunwar Rewati Raman

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether species such as seeds, spores, Mites, Lichens and Mosses that are alien to the continent have been found in Antarctica;

(b) if so, the details thereof;

(c) whether scientists are finding a host of other tiny organisms from springtails- closely related to insects to mosses, rats or mice in Antarctica,

(d) if so, the details thereof alongwith the origin of these organisms;

(e) whether the Government has asked its mission there about the impact of icy wilderness on these species/organisms and share it with other countries; and

(f) if so, the details in this regard?

Answer

MINISTER OF SCIENCE AND TECHNOLOGY AND MINISTER OF EARTH SCIENCES(SHRI KAPIL SIBAL)

(a & b) Yes Sir, some species of lower plant forms, not native to Antarctica, have been found. For example, a species of European grass (Agrostis stolonifera), a carnivorous beetle species, Poa annua (a seed plant) and Australian pollen taxa have been reported as alien species in Antarctica.

(c & d) Yes Sir, a total of 439 species of lichens, 111 species of mosses, 4 species of mites, 7 species of tardigrads have so far been reported from Antarctic region. However, due to phenotypic plasticity in different species, it is difficult to trace the actual centre of origin of Antarctic species. It may be possible with genomic sequencing of these species in future.

(e & f) The data and research undertaken by different countries on alien species are shared under the aegis of SCAR (Scientific Committee on Antarctic Research). According to published reports and data available, many of these alien species have been responsible for significantly decreasing biodiversity at invaded sites and indirectly causing a change in adult body size in populations of its major prey species. Antarctica's harsh climate and ice cover protect against alien colonization, but on milder sub Antarctic islands like Marion Island and South Georgia Island which are getting warmer in recent decades are increasingly favorable sites for alien species to colonize and spread.